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Age-Related Concerns of Male Veteran Callers to a Suicide Crisis Line

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Abstract

In July 2007, the United States Department of Veterans Affairs (VA) partnered with the Department of Health and Human Services' Substance Abuse and Mental Health Service Administration (SAMHSA) to create the Veterans Crisis Line (VCL) in order to meet the unique needs of Veterans in distress. The current study utilized a mixed methods design to examine characteristics of male callers to the VCL. Results from qualitative analyses demonstrated that the majority of callers between April 1 and August 31, 2008 contacted the VCL with concerns related to mental health issues, suicide ideation, and substance abuse issues. Quantitative analyses demonstrated age differences associated with concerns presented by callers such that middle-aged and older callers were more likely to present with loneliness and younger callers were more likely to present with mental health concerns. The results of this study will help to inform future research designed to optimize the effectiveness of the VCL for suicide prevention in Veterans.

Keywords

suicide; veterans; crisis line; hotline

In 2011, about 7% of the population of the United States (U.S.) were Veterans of the Armed Forces (VA NCVAS). Although exact figures are not available because there is currently no nationwide system of suicide surveillance for U.S. Veterans, research studies suggest that the rate of suicide for Veterans ranged between 15 and 26 per 100,000 from 1991 to 2008 (Kang & Bullman, 2009). A 2009 study examining Veterans who utilize the Veterans Health Administration Health System (VHA) for care demonstrated a rate of suicide of 43.13 per 100,000 (McCarthy et al., 2009). At first glance, the seemingly high rate of suicide among

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Veterans in the U.S. is alarming. However, it is important to note that the Veteran population contains a large number of older men. In fact, in 2013, the U.S. Department of Veterans Affairs (VA) projects that approximately 48% of the more than 19,000,000 U.S. Veterans will be men over the age of 65 (VA NCVAS, 2011). This point has important implications for our understanding of suicide in Veterans, because older men, in general, have high rates of suicide in the U.S. (among those 65 and older 29.8 per 100,000 compared to 12.1 per 100,000 in the general population in 2010; CDC, 2012). Thus, the seemingly high number of suicides in Veterans may be partly explained by the fact that such a large number of Veterans are older men, and older men have high rates of death by suicide in the U.S.

In response to increased concerns about suicide risk among Veterans in the U.S., the VA has recently made a concerted effort to develop programs to prevent suicide among Veterans (VA OMHS, 2011; Knox et al., 2012). Specifically, the VA has launched programs to increase the accessibility of mental health care, including the institution of VA suicide prevention teams located in all VA medical centers (VA OMHS, 2011; Knox et al., 2012). In addition, in July of 2007, the VA partnered with the Department of Health and Human Services' Substance Abuse and Mental Health Service Administration (SAMHSA) to become part of SAMHSA's National Suicide Prevention Lifeline Network. This network consists of over 145 crisis centers nationwide that use a toll-free suicide prevention number (1-800-273-TALK). When prompted to "Press 1" after calling this number, Veteran callers are routed to the VA's Veterans Crisis Line (VCL), which has been widely promoted throughout the VA system and more broadly through public awareness campaigns (VA OMHS, 2011; Knox et al., 2012). The purpose of the present paper is to examine characteristics of callers to the VCL with the ultimate goal of tailoring VCL interventions to better meet their needs. Because most Veterans are men and suicide in Veterans is associated with older age, the focus of this paper will be on examining age differences in the concerns presented by male VCL callers.

In order to more effectively address the needs of VCL callers, it is important to develop a better understanding of why individuals utilize hotline services so that we might tailor hotline interventions (Joiner et al., 1999). Several descriptive studies have been conducted examining the reasons individuals use crisis hotlines. These studies have consistently demonstrated that individuals who call hotlines are experiencing feelings of distress related to such issues as social isolation and interpersonal problems (see for e.g. Barber et al., 2004; Gould, Kalafat, Harris Munfakh, & Kleinman, 2007; Kalafat, Gould, Harris Munfakh, & Kleinman, 2007), loneliness (e.g. Barber), abuse/violence (e.g. Gould et al.; Kalafat et al.), addictions (e.g. Gould et al.; Kalafat et al.), other mental health problems (e.g. Gould et al.; Kalafat et al.), and physical health problems (e.g. Gould et al.; Kalafat et al.).

Only two studies have examined crisis hotlines utilized by Veterans. One of these studies examined callers who contacted a crisis intervention hotline at a Veterans Administration Medical Center in South Florida in 1992 (Porter, Astacio, & Sobong, 1997). In this study, 81% of callers were younger than 50 years of age, and 91% were male. Callers to this small VA crisis intervention hotline presented problems related to loneliness, addiction, unemployment, and family difficulties. In addition to this study of U.S. Veterans, Bryant

(1998) content-analyzed call monitoring forms completed during a nine-week period by responders on an after-hours telephone service for Australian Vietnam Veterans. Although age and gender were not reported, Bryant found that domestic conflict, depression, traumatic memories and substance abuse were the most common concerns of callers.

The results of past studies may not generalize to callers to the VCL. Studies examining callers to community crisis lines largely sampled younger women (e.g. Gould et al., 2007; Kalafat et al., 2007). This is problematic because data suggests that, as would be expected of a crisis line targeted to Veterans, most individuals (more than 70%) who call the VCL are men (VA VCL, 2012). VCL callers also differ from callers to community crisis lines in terms of age. Approximately 66% of VCL callers are 49 years old or older. In comparison, in one major study of a community crisis line, the average age of callers was 36 years old (Gould et al., 2007; Kalafat et al., 2007). The two studies examining concerns expressed to Veterans crisis lines examined hotlines that were not specifically billed as “suicide prevention hotlines,” thus it is likely that Veterans who called these hotlines differed significantly from Veterans who call the VCL in terms of their reasons for contacting the hotlines and in terms of their level of distress. In addition, the hotlines investigated in these studies serviced much smaller geographic areas than the VA crisis line, which provides services to all of the U.S. Finally, no studies to date have examined age differences in the characteristics of crisis line callers. Such data will be particularly important for developing interventions specifically tailored for the Veteran population most at risk for suicide in the U.S. -- older male Veterans.

Accordingly, the specific aims of this preliminary study were twofold. First, we set out to describe the concerns presented by male VCL callers as recorded by hotline responders in the early days of the hotline operation. In this study, we decided to focus on male Veterans, because the majority (over 70%; Knox et al., 2012) of Veterans calling the VCL are men. Because this was a preliminary study, it was not feasible to oversample call logs from female Veteran callers in order to meaningfully compare themes presented by men and women in our quantitative analyses. Next, because we hypothesized that concerns presented by male VCL callers would vary by age, we identified age-related concerns of callers in order to gather information that might help tailor future intervention strategies for VCL callers who are particularly vulnerable to suicide risk. Specifically, we hypothesized that age would be significantly, positively associated with physical health problems, sleep issues, the death of a family member or friend, and loneliness. We also hypothesized that age would be significantly, negatively associated with mental health issues, war-related trauma, and relationship issues.

METHOD

This study was approved by the Ethical Review Board for the Veterans Administration Medical Center in Canandaigua. The data in this study consisted of de-identified call logs from calls made to the VCL from April 2008 to August 2008. This study utilized a three phase mixed methods design to examine concerns of VCL callers. In the first phase, we used grounded theory qualitative methods to extract themes from a large sample of call logs. In the second phase, we rated another sample of call logs to insure the themes derived from

phase one were reliable. In the third phase, we conducted a quantitative analysis to examine the association between the themes identified in phase one and age in a new sample of call logs.

Phase 1

Three expert raters from the Veterans Integrated Service Network (VISN) 2 Center of Excellence for Suicide Prevention in Canandaigua (two clinical psychologists and one doctoral level nurse) independently read call logs recorded by crisis line responders in the first three weeks of April 2008, the first month that a standardized reporting form was used on the new crisis line. At this time, the VCL began using a standard form rather than an unstructured narrative summary of calls. The form contained elements such as demographics, theater of war, suicide status, homelessness and/or substance abuse present, and the outcome of the calls (e.g., referred to 911 or suicide prevention coordinator). Responders were trained on the reporting documentation during their initial orientation to the VCL. As they “shadowed” other seasoned responders during the first month of working at the VCL, the seasoned responders solidified initial training on how to complete these forms by encouraging new responders to watch the seasoned responders complete the forms during phone calls. The new responders were then shadowed by seasoned responders while they took calls and provided documentation until the new responders were ready and comfortable taking calls on their own.

Each rater read call logs for each call received across all three shifts (day, evening, night) and across each day of the week from a different week of the month. In order to identify themes as inclusively as possible, no call logs were excluded from analysis during this phase. Each rater kept a running list of all salient concerns mentioned in the logs. On average, 800 calls were received each week and each rater read 700-800 call logs. Next, the three raters met and created a consensus list of 16 salient themes to be used for subsequent ratings of call logs. Themes identified included: suicide ideation, suicide plan, suicide attempt, anger at the VA, caregiver burden, death of family/friend/pet, questions about the VA, loneliness, loss of home/job/finances, mental health issues, relationship issues, physical health problems, serious illness of family/friend/pet, sleep issues, substance abuse issues, and war-related trauma (operational definitions of these themes are available upon request).

Phase 2

After the consensus list of caller themes was developed, two of the original raters (D.K. & C.T) read an additional 50 call logs from the final week of April 2008 in order to test inter-rater reliability of the coding of themes. Cohen’s Kappas (Gwet, 2012) are depicted in Table 1 for each of the themes. Kappas could not be calculated for three of the themes, “angry at the VA,” “caregiver burden,” and “serious illness or injury of friend” because there was no variability in ratings for at least one of the raters. These three themes were excluded from subsequent analyses.

Phase 3

Finally, in order to create a sample of call logs for analysis, a research assistant, blind to the study aims, randomly selected one call log per shift (for each of three daily shifts) from all

remaining call logs recorded between April 1 and August 31, 2008. August 31st was chosen as the study end date because the VCL transitioned to a new recording template at this time. This new template uses an electronic call log with fewer text boxes and more “drop-down” and “check-box” options.

For this study, call logs were excluded if the callers were not Veterans or if the callers’ age was not recorded. Only call logs from male callers were included in this data collection. In total, 412 call logs were examined during this phase. These logs were examined by the two doctoral level raters who assessed the call logs for the presence or absence of the themes they previously identified above. At this stage, only the themes where Kappa was greater than 0.60 (Fleiss, 1981, p. 213) were included in analyses (please see Table 1). Caller age was also recorded from call logs.

Data Analysis

Each of the 16 themes in the call logs was coded as 1 for present and 0 for absent. The frequency and percentage for each of the themes is provided in Table 1 for the study sample. We conducted logistic regression to examine the association between each of the themes and age. In the logistic regression model, each of the themes was treated as a dependent variable and age was treated as an independent variable. The odds ratio provided in Table 2 measured the magnitude and direction of the association. Again, the odds ratio, the 95% confidence level, and the corresponding *p* value are provided. A two-sided *p* < .05 was considered statistically significant. All data were analyzed using SAS statistical software version 9.1 (SAS Institute, Inc. Cary, NC).

RESULTS

Caller Characteristics

The recorded age of callers ranged from 20 to 86 years, with a mean age of 48.63 years (*SD* = 13.32). In all, 134 participants (32.52%) were aged 20-44 years, 239 (58.01%) were aged 45-64 years, and 39 (9.47%) were over age 65. Our final sample consisted of 412 call logs.

Caller Themes

Frequencies and percentages of caller themes are shown in Table 1. The top three themes that emerged in the calls we examined were: mental health issues, suicide ideation, and substance abuse issues.

Age-Related Call Themes

The results of the logistic regression analysis for testing the relation between call themes and callers’ age are depicted in Table 2. Age was significantly associated with loneliness (*OR* = 1.05; *p* < 0.01) and mental health concerns (*OR* = 0.98; *p* < 0.05), with older and middle-aged Veterans more likely to feel lonely, but less likely to express mental health concerns. The mean age of Veterans expressing some form of loneliness was 56 years (*SD* = 15) whereas the mean age for Veterans discussing a mental health concern was 48 years (*SD* = 14). Age was not significantly associated with any of the other themes, including themes associated with suicidal behavior.

DISCUSSION

Our first aim was to describe the concerns expressed by male callers to the VCL. The most frequently presented complaints pertained to mental health problems, suicide ideation, and/or substance misuse. Our findings are similar to results from other studies examining themes in crisis line calls, which demonstrated concerns related to substance abuse and mental health problems (Barber, 2004; Bryant, 1998; Gould et al., 2007; Kalafat et al., 2007; Porter et al., 1997).

The second aim of the present study was to examine age differences in the concerns expressed by male callers to the VCL. Our hypotheses for this aim were partially supported. Although loneliness was a relatively uncommon presenting complaint (recorded as a concern for only 22 Veterans in this sample of 412), it was associated with age such that older callers were more likely to express feeling lonely. In contrast, age was negatively associated with discussing a mental health concern.

Some limitations to this study must be considered in interpreting the results. First, the data for this study were collected in the very early days of the inception of the VCL. At that time, the VCL was called the VA National Suicide Hotline and marketed exclusively as a suicide hotline. In 2011, the name of the hotline was changed to the Veteran's Crisis Line. Although the VCL continued to be marketed to individuals who were experiencing suicidal thoughts, the marketing campaign was expanded to emphasize that any Veteran in crisis may call the hotline. It is possible that, at the time of this study, callers were more likely to be experiencing suicidal ideation than callers who have called the VCL more recently. Thus, additional research is needed to examine whether the results of this study can be generalized to current VCL callers. Second, it is important to note that the data in this study are not necessarily representative of all Veterans at risk for suicide, as many Veterans at risk for suicide do not seek help from the VCL (or any other venue). Third, as women were not included in this study, the results of this study do not generalize to female VCL callers. Future studies should set out to compare male and female VCL callers. A final limitation centers on the fact that the data for this study were obtained indirectly, from call logs that were subject to the variable reporting styles of crisis line responders in the early phase of crisis line operation. At the time these data were collected, the reliability of call logs was unknown and some of the information in the call logs may have been subject to the judgment of call responders and the way they summarized the content of the calls they received. In addition, it is likely that different call responders had different levels of conscientiousness in terms of completing the call logs. An implication of this limitation is that the data used in this study may have been biased by the beliefs, interpretations, and conscientiousness of the crisis line responders. It would be useful to replicate the current study using the new, electronic call logs, which have force-choice options and drop-down menus. We would hypothesize that these new call logs have less variability.

Despite these limitations, this preliminary investigation suggests some interesting potential avenues for future investigations. Research examining risk factors for death by suicide has found that social isolation and low social support is a prominent risk factor for suicide in both older and younger adults (Conwell, Van Orden, & Caine, 2011, Hawton et al., 2001),

and that enhancing social connectedness is a common feature of interventions shown to have potential impact on suicide (Van Orden et al., 2010). In adult clinical samples, for example, periodic letters to high-risk individuals that express caring have been associated with reduced suicide mortality (Motto & Bostrom, 2001). Based on the preliminary evidence in this study, we would hypothesize that a call to the VCL may itself represent a potent preventive intervention for those older and middle-aged Veterans for whom loneliness and social disconnection are driving risk factors. More information is needed about whether individuals utilizing the VCL are experiencing positive outcomes as a result of the interventions being implemented by crisis line responders. Additional training of VCL staff to recognize this group and to optimize their social connectedness, both during and after the crisis call ends, may further increase the effectiveness of the VCL in decreasing suicidal behavior in older Veterans.

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Table 1

Frequencies and Percentages of Themes Expressed by Male VA Crisis Line Callers (N=412)

Variable	Counts	Percentage	Kappa
Mental Health Issues	281	68.20	0.85
Suicide ideation	175	42.48	0.95
Substance Abuse Issues	125	30.34	0.80
Loss of Home/Job/Finances	84	20.39	0.64
Relationship Issue	64	15.53	0.84
Suicide plan	59	14.32	1.00
Physical Health Problems	56	13.59	0.92
Sleep Issues	27	6.55	0.77
War-Related Trauma	23	5.58	1.00
Loneliness	22	5.34	1.00
Death of Friend/Family/Pet	19	4.61	1.00
Angry at the VA	10	2.43	NA
Suicide Attempt	10	2.43	1.00
Questions about the VA	9	2.18	0.46
Serious Illness/Injury of Friend	6	1.46	NA
Caregiver Burden	2	0.49	NA

Note: 1. The Kappa was calculated using a different sample of 50 subjects. The themes was coded by two raters for inter-rater reliability analysis.

2. NA indicates no Kappa applicable due to lack of variability of rates for at least one rater.

Table 2

The Results of Logistic Regression Testing the Association of Age and Caller Theme for Males Only (N=412)

Variable	Odds ratio	95% Confidence Limits		P value
		Lower	Upper	
Mental Health Issues	0.98	0.97	1.00	0.04 *
Suicide ideation	1.00	0.99	1.02	0.74
Substance Abuse Issues	1.00	0.98	1.01	0.84
Loss of Home/Job/Finances	1.01	0.99	1.03	0.37
Relationship Issue	0.99	0.97	1.01	0.32
Suicide plan	1.00	0.99	1.02	0.86
Physical Health Problems	1.01	0.99	1.03	0.40
Sleep Issues	0.97	0.95	1.00	0.07
War-Related Trauma	0.98	0.95	1.01	0.15
Loneliness	1.05	1.01	1.09	0.01 *
Death of Friend/Family/Pet	1.00	0.97	1.04	0.88
Suicide Attempt	0.98	0.93	1.02	0.33

*
 $p < .05$